



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,329	12/07/2003	Daniel Bernard McKenna	013207.164CSUS	2376
24283	7590	05/18/2005	EXAMINER	
PATTON BOGGS 1660 LINCOLN ST SUITE 2050 DENVER, CO 80264			DOAN, KIET M	
			ART UNIT	PAPER NUMBER
			2683	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

10/730,329

Applicant(s)

MCKENNA ET AL.

Examiner

Kiet Doan

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10, 12-23, 25, 26, 38 and 39 is/are rejected.
7) ☒ Claim(s) 11, 24 and 37 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02/02/2005.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. **Claims 11, 24 and 37** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Consider **claims 11, 24 and 37**, the prior art record does not teach or fairly suggest considering a state of data router means for disaggregating said aggregate data stream by technology into a plurality of data streams and delivering each of said plurality of data streams to a corresponding one of said plurality of ground-based base station means.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1, 14-16 and 27-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Sabatino (Patent No. 6,735,438).

Consider **claims 1, 14 and 27**, Sabatino teaches a system/method for providing wireless communication services to a plurality of wireless subscriber devices that are

Art Unit: 2683

located in an aircraft (Abstract, C4, L32-49 teach wireless communication in the aircraft), comprising: aircraft network means for generating radio frequency communication signals to communicate with at least one of said plurality of wireless subscriber devices (C4, L44-49, Fig.4, Illustrate communication between aircraft and wireless subscriber devices means as No.26); air-to-ground network means for radio frequency communications between said aircraft and a ground-based communications system having at least one transceiver located on the ground (Fig.4, No.10, No.40 Illustrate as transceiver located on the ground); and aircraft interface means for interconnecting said aircraft network means and said air-to-ground network means to establish communications between said plurality of wireless subscriber devices and said ground-based communications network (C6, L35-67, C7, L1-10, Fig.5, No.60, No.70 means as ground-based communications network).

Consider **claims 2, 15 and 28**, Sabatino teaches the system/Method for providing wireless communication services wherein said aircraft network means comprises: aircraft cellular communication means for establishing at least one cell site to communicate via communications with at least one of said plurality of wireless subscriber devices (C6, L35-59, Fig.4 Illustrate aircraft No.30, cell site No.10, and wireless subscriber devices No.26).

Consider **claims 3, 16 and 29**, Sabatino teaches the system for providing wireless communication services wherein said aircraft cellular communication means

Art Unit: 2683

comprises: at least one base station means, each of which establishes a cell site to communicate via communications with at least one of said plurality of wireless subscriber devices (C6, L35-59, and Fig.4 illustrate the limitation of claim).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-10, 12, 17-19, 30-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sabatino (Patent No. 6,735,438) in view of Zicker (Patent No. 6,314,286).

Consider **claims 4-5, 17-18 and 30-31**, Sabatino teaches the limitation of claim as discuss above **but fail to teach** the system for providing wireless communication services wherein said aircraft interface means comprises: authentication means for verifying the identity of said plurality of wireless subscriber devices.

In an analogous art, Zicker teaches "Control of telecommunications services for subscriber-provided radio communication devices residing in a miniature cellular environment". Further, Zicker teaches the system for providing wireless communication services wherein said aircraft interface means comprises: authentication means for verifying the identity of said plurality of wireless subscriber devices (C4, L50-58, C12, L8-28).

Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Sabatino and Zicker system, such that authentication/verifying the identity of said plurality of wireless subscriber devices, to provide means for the system can bill to the users when subscriber are verify/authorize.

Consider **claims 6, 19 and 32**, Zicker teaches the system for providing wireless communication services of claim 3 wherein said air-to-ground network means comprises: wireless subscriber device means, connected to said at least one base station means and responsive to receipt of radio frequency communication signals from a one of said plurality of wireless subscriber devices, for emulating operation of said one wireless subscriber device in communicating with said ground-based communications system (C4, L58-67, C5, L1-35).

Consider **claims 7 and 33**, Sabatino teaches the system for providing wireless communication services of claim 3 wherein said air-to-ground network means comprises: transmitter means for generating downlink radio frequency signals for transmission to said at least one transceiver located on the ground; receiver means for receiving uplink radio frequency signals received from said at least one transceiver located on the ground; and antenna means located on an external surface of said aircraft for exchanging said downlink and uplink radio frequency signals between said transmitter and said receiver means and said at least one transceiver located on the

ground (C4, L51-67, C5, L1-21).

Consider **claims 8, 21 and 34**, Zicker teaches the system for providing wireless communication services of claim 2 wherein said aircraft cellular communication means comprises: a plurality of base station means to communicate via communications with at least one of said plurality of wireless subscriber devices, each of said plurality of base station means operating in a cellular technology that differs from those of the remaining ones of said plurality of base station means (C4, L58-67, C5, L1-15, Fig.2, illustrate plurality of base station as No.40 and wireless subscriber devices as No.50).

Consider **claims 9 and 35** Zicker teaches the system for providing wireless communication services of claim 8 wherein said aircraft interface means comprises: data concentrator means for converting the individual traffic and signaling channels received from said plurality of base station means to an aggregate data stream (C5, L39-49, C7, L37-56).

Consider **claims 10 and 36**, Zicker teaches the system for providing wireless communication services of claim 9 wherein said air-to-ground network means comprises: ground station controller means for mobility management and hand over management for said plurality of wireless subscriber devices (C6, L54-64, Fig.2, No.44, Illustrate controller which management for said plurality of wireless subscriber devices).

Consider **claim 12**, Zicker teaches the system for providing wireless communication services of claim 9 wherein said air-to-ground network means further comprises: a plurality of mobile switching system means for interconnecting said communications from at least one of said plurality of wireless subscriber devices with conventional Voice and Data switching systems (C9, L54-64).

4. **Claims 13, 26 and 39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sabatino (Patent No. 6,735,438) in view of Zicker (Patent No. 6,314,286) and further view of Nelson et al. (Patent No. 6,760,778).

Consider **claims 13, 26 and 39**, Sabatino and Zicker teach the limitation of claim as discuss above **but fail to teach** the system for providing wireless communication services of claim 1 wherein said aircraft network means comprises: aircraft cellular communication means for establishing at least one wireless LAN-based cell site to communicate via data-based communications with at least one of said plurality of wireless subscriber devices.

In an analogous art, Nelson teaches "System and method for communication between airborne and ground-based entities". Further, Nelson teaches the system for providing wireless communication services of claim 1 wherein said aircraft network means comprises: aircraft cellular communication means for establishing at least one wireless LAN-based cell site to communicate via data-based communications with at least one of said plurality of wireless subscriber devices (C13, L21-36).

Art Unit: 2683

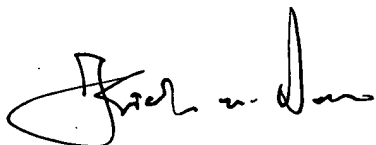
Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Sabatino, Zicker and Nelson system, such that aircraft cellular communication means for establishing at least one wireless LAN-based cell site to communicate via data-based, to provide means for the users can access internet.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet Doan whose telephone number is 571-272-7863. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kiet Doan
Patent Examiner



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600